# Appendix E Impacts Summary

Appendix E identifies all the segments considered during the route selection process: including segments associated with the selected routes and the segments not selected for the routes. The table also summarizes the impacts associated with each segment. Crossover locations have been identified as options to vary the route and are identified on the maps with the letter "C". Routes along the interstate are designated with an "I", whereas routes along the Alliant Route are designated with a "T". The eastern route segments have been identified with the letter "E", whereas the western route segments have been identified with the letter "W." Routes to Substation C varied from routes to Substations A and B. Due to this fact, these routes are identified separately as WSubC and 1SubC. The route to Substation C to the East Route was not considered as an option.

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#Residences/Distance from Line  #Businesses/ Farm #Wetlands #Wetlands Count of # of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of Scientific and # of Recreating Factors # Of PWI # of PWI # of Scientific and # of PWI #													
ect	Routing	Segment	0-40	40-100	100-200	200-300	# Businesses/ Farm Buildings	# Wetlands Crossed	# Wetlands Unable to Cross	Count of # of PWI Waters Spanned	# of Scientific and Natural Areas Crossed	# of Recreational Areas Crossed	Rare and T& w/in 1/2 mi
1	E	E2	0	0	17 3	7	0	9	0	6	0	2	1
		E3	0	0	2	1	0	0	0	1	0	0	0
		E4 E5	0	0	5	1 4	0	4	0	1 2	0	1	1
		EW1	0	0	1	ó	0	0	0	1	0	0	0
Ŋ	W		0	0	19	6	6	20	0	12	0	0	0
		EW1 W2	0	0	1	0	0	0	0	1	0 0	0	0
		W3	0	0	2	0	0	2	0	2	0	0	0
		W4 W5	0	0	0 12	6	0	2 12	0	3	0	0	0
		W6	0	0	3	0	6	3	0	3	0	0	0
V	WSubC		0	0	20	6	6	22	0	13	0	0	0
		AW1 W3	0	0	3 2	0	0	3 2	0	3 2	0 0	0	0
		W4 W5	0	0	0 12	6	0	2 12	0	2	0 0	0	0
		W6	0	0	3	0	6	3	0	3	0	0	0
1		C5	0	0	0	4	3	30 0	0	16 1	0	0	22 0
		C7	0	0	0	0	0	0	0	i	0	0	0
		I1 I2	0	0	0	0	0	2 2	0	1	0	0	0
		I3 I4	0	0	0	0	0	1 3	0	1	0	0	0 2
		I5	0	0	0	0	0	8	0	1	0	0	17
		I6 I8	0	0	0	0 2	0	3 2	0	1 2	0	0	1 2
		19	0	0	0	0	0	3	0	1	0	0	0
		T10 T14	0	0	1 0	1	0	2 1	0	1	0	0	0
		T15 T9	0	0	0	0	1 0	2	0	1	0	0	0
		115	0	0	0	0	0	0	0	1	0	ő	0
1	SubC		0	0	1	4	3	29	1	17	0	0	21
		C4 C5	0	0	0	0	0	0	0	1	0	0	0
		C7	0	0	0	0	0	0	0	1	0	0	0
		I1 I2	0	0	0	0	0	2 2	0	1	0	0	0
		I3 I4	0	0	0	0	0	1 3	0	1	0	0	0 2
		I5	0	0	0	0	0	8	0	1	0	0	17
		18 19	0	0	0	0	0	2	0	2	0	0	2
		T10	0	0	1	1	0	2	0	1	0	0	0
		T14 T15	0	0	0	0	1	2	0	1	0	0	0
		T8 T9	0	0	0	0	0	2	0	1	0	0	0
		I15	0	0	0	0	0	ō	0	1	0	0	0
2	2		1	3	2	4	7	50	2	17	0	1	23
		MF1 T1	0	0 3	0	0	0	1 3	0	1 3	0 0	0	0
		T10	0	0	1	1	0	2 7	0	1	0	0	0 2
		T11 T12	0	0	0	0	1	0	0	1	0	0	0
		T13 T14	0	0	0	1	1	1	1	1	0	0	0
		T2	0	0	0	0	0	4	ő	i	0	ő	0
		T3 T4	0	0	0	1	0 2	1 7	0	1	0	0	0
		T5	0	0	1	1	1 0	2	0	1	0	0	3
		T6 T7	0	0	0	0	1	2 16	0	1	0	0 1	11 6
		T8 T9	0	0	0	0	0	2	0	1	0	0	0

- Assumptions:

  1. Wetlands numbers were compiled using the NWI maps and provide an estimate of the number of wetlands likely present along the route. These numbers do not necessarily represent the number of wetlands subject to state and federal wetland regulations.

  2. PWI waters were identified using the MN DNR PWI maps.

  3. Scientific and Natural Areas and Recrational Areas were acquired from the Minnesota DNR Data Deli.

  4. Rare and Therestend and Endangered species were identified using data licensed from the Minnesota DNR for this project.

  5. Residences and Businesses were confirmed during field investigations and using 2003 FSA aerial photographs.

  6. Cultural Resources data is attached separately.

#### Route Environmental Data - Segments Not Selected

	#1	Residences/	Distance from	n Line	-						
Segment	0-40	40-100	100-200	200-300	# Businesses/ Farm Buildings	# Wetlands Crossed	# Wetlands Unable to Cross	Count of # of PWI Waters Spanned	# of Scientific and Natural Areas Crossed	# of Recreational Areas Crossed	Rare and T&E w/in 1/2 mi.
C1	0	0	0	0	0	1	0	1	0	0	0
C2	0	0	0	0	0	0	0	1	0	0	0
C3	0	0	0	0	0	1	0	1	0	0	1
C6	0	0	0	0	0	0	0	1	0	0	0
I10	0	0	0	0	0	0	0	1	0	0	0
I11	0	0	0	0	0	2	0	2	0	0	0
17	1	1	3	5	3	0	0	1	0	0	2
MF2	0	0	0	0	0	0	0	1	0	0	0
I12	0	0	0	0	0	0	0	1	0	0	0
I13	0	0	0	0	0	0	0	2	0	0	0
I14	0	0	0	0	0	0	0	1	0	0	0

- 1. Wetlands numbers were compiled using the NWI maps and provide an estimate of the number of wetlands likely present along the route. These numbers do not necessarily represent the number of wetlands subject to state and federal wetland regulations.
- 2. PWI waters were identified using the MN DNR PWI maps.
- Scientific and Natural Areas and Recreational Areas were acquired from the Minnesota DNR Data Deli.
   Rare and Threatened and Endangered species were identified using data licensed from the Minnesota DNR for this project.
- 5. Residences and Businesses were confirmed during field investigations and using 2003 FSA aerial photographs.
- 6. Cultural Resources data is attached separately.

# Land Use Total Impacts Summary

Project	Route	Total Route Length	Temporary Const. Road	Temporary Pole	Temporary Total	Permanent Total
115						
	E	36.66	88.92	22.23	111.15	0.67
	W	36.17	87.68	21.92	109.61	0.66
	WSubC	35.64	86.40	21.60	108.00	0.65
345						
	1	88.01	189.87	19.99	209.85	0.60
	2	85.71	183.42	19.31	202.73	0.58
	1SubC	87.85	189.48	19.95	209.42	0.60

- 1. Units are in acres.
- 2. Number of poles was determined using the average span between poles, which was divided into the length of each route segment. This number is approximate since the final number of poles is dependent on the final engineering design. Average span for the 345 poles is 950-feet. Average span for 115 poles is 400-feet.
- 3. Temporary Construction Road was calculated using a 20-foot width, which is the temporary impacts associated with each route segment.
- 4. Temporary Pole Impacts were calculated assuming 2000 square foot area around reach pole. This takes into account the construction road impacts calculated in E.6, so the impacted area around the pole is not counted
- 5. Temporary Total is the sum of the impacts associated with the temporary construction road and the temporary pole impacts.
- 6. Permanent impacts were calculated assuming impacts are 60 square feet per

Project	Route	Segment	Avg. Agricultural %	Avg. Commercial %	Avg. Grassland %	Avg. Forested %	Avg. Residential %	Avg. Wetlands %
115								
	Е	<b>-</b>	90.7	0.2	7.6	0.7	0.9	0.0
		E2	87.5	0.5	7.4	2.5	2.1	0.0
		E3 E4	98.9 91.5	0.0	1.0	0.0	0.1 1.7	0.0
		E4 E5	91.5 91.3	0.1 0.2	6.3 7.8	0.4 0.7	0.1	0.0
		EW1	84.2	0.2	15.4	0.7	0.3	0.0
		EWI						
	W		89.7	0.0	8.9	1.1	0.4	0.0
		EW1	84.2	0.0	15.4	0.1	0.3	0.0
		W2 W3	99.3 98.0	0.0	0.0 0.3	0.5 1.7	0.2 0.0	0.0
		W3 W4	98.0 83.7	0.0	15.6	0.0	0.7	0.0
		W5	88.2	0.0	11.3	0.4	0.7	0.0
		W6	84.9	0.0	10.5	3.6	1.0	0.0
	WSubC	•	90.0	0.0	8.2	1.2	0.4	0.1
	WSubC	AW1	95.4		3.5			0.7
		W3	98.0	0.0	0.3	0.4 1.7	0.0	0.7
		W4	83.7	0.0	15.6	0.0	0.7	0.0
		W5	88.2	0.0	11.3	0.4	0.1	0.0
		W6	84.9	0.0	10.5	3.6	1.0	0.0
		1 ""	0.02		100	3.0	1.0	
345			<b>62.5</b>	0.2	45.0	0.4	0.2	0.1
	1	C5	<b>63.5</b> 97.0	<b>0.3</b> 3.0	15.8 0.0	<b>0.1</b> 0.0	0.2 0.0	0.1 0.0
		C7	98.4	0.0	1.6	0.0	0.0	0.0
		I1	0.0	0.0	0.0	0.0	0.0	0.0
		12	0.0	0.0	0.0	0.0	0.0	0.0
		I3	0.0	0.0	0.0	0.0	0.0	0.0
		I4	52.8	0.1	46.5	0.3	0.0	0.3
		15	45.6	0.1	53.9	0.2	0.1	0.1
		I6	79.8	0.0	20.2	0.0	0.0	0.0
		I8	54.4	0.0	45.6	0.0	0.0	0.0
		I9	35.1	0.0	64.5	0.0	0.0	0.4
		T10	94.9	0.9	4.1	0.0	0.0	0.1
		T14	98.6	0.0	0.0	0.0	1.4	0.0
		T15	100.0	0.0	0.0	0.0	0.0	0.0
		T9 I15	98.5 97.9	0.0 0.8	0.0 1.0	0.6 0.3	0.9	0.0
		1 ***						
	2	-	74.7	0.2	4.3	0.2	0.3	0.4
		MF1	96.2	1.2	2.6	0.0	0.0	0.0
		T1	0.0	0.0	0.0	0.0	0.0	0.0
		T10	94.9	0.9	4.1	0.0	0.0	0.1
		T11	98.6	0.0	1.4	0.0	0.0	0.0
		T12 T13	98.6 86.2	0.5 0.0	0.7 7.9	0.2 0.0	0.0 0.9	0.0 5.0
		T14	86.2 98.6	0.0	0.0	0.0	1.4	0.0
		T2	0.0	0.0	0.0	0.0	0.0	0.0
		T3	0.0	0.0	0.0	0.0	0.0	0.0
		T4	73.5	0.0	25.3	1.2	0.0	0.0
		T5	97.1	0.2	2.0	0.5	0.2	0.0
		T6	98.2	0.0	1.8	0.0	0.0	0.0
		T7	86.2	0.1	12.6	0.4	0.4	0.3
		T8	93.2	0.0	6.5	0.3	0.0	0.0
		Т9	98.5	0.0	0.0	0.6	0.9	0.0
	1SubC	_	66.0	0.3	14.5	0.2	0.2	0.1
		C4	90.2	0.0	8.7	1.1	0.0	0.0
		C5	97.0	3.0	0.0	0.0	0.0	0.0
		C7	98.4	0.0	1.6	0.0	0.0	0.0
		I1	0.0	0.0	0.0	0.0	0.0	0.0
		I2	0.0	0.0	0.0	0.0	0.0	0.0
		I3	0.0 52.8	0.0	0.0	0.0	0.0	0.0
		I4 I5	52.8 45.6	0.1 0.1	46.5 53.9	0.3 0.2	0.0 0.1	0.3 0.1
		15 18	45.6 54.4	0.1	53.9 45.6	0.2	0.1	0.1
		18 19	35.1	0.0	45.6 64.5	0.0	0.0	0.0
		T10	94.9	0.0	4.1	0.0	0.0	0.4
		T14	98.6	0.0	0.0	0.0	1.4	0.0
		T15	100.0	0.0	0.0	0.0	0.0	0.0
		T8	93.2	0.0	6.5	0.3	0.0	0.0
			98.5	0.0	0.0		0.0	0.0
		T9				0.6	0.9	0.0

<sup>\*</sup> Land Use data was obtained from the Minnesota LMIC International Coalition Land Use/Land Cover project. Each land use type is defined in Appendix G. WSubC represents impacts along Route W where the line is routed to Substation C. 1Sub C represents impacts along Route 1 where the line is routed to Substation C.

## Land Use\* Percentage Summary - Segments Not Selected

Segment	Avg. Agricultural %	Avg. Commercial %	Avg. Grassland %	Avg. Forested %	Avg. Residential %	Avg. Wetlands %
C1	0.0	0.0	0.0	0.0	0.0	0.0
C2	0.0	0.0	0.0	0.0	0.0	0.0
C3	70.4	6.2	19.9	3.5	0.0	0.0
C6	92.7	0.0	7.3	0.0	0.0	0.0
I10	34.4	0.0	65.6	0.0	0.0	0.0
I11	49.5	0.0	50.5	0.0	0.0	0.0
17	86.6	1.1	9.6	1.4	1.3	0.0
MF2	98.8	0.0	1.2	0.0	0.0	0.0
I12	100.0	0.0	0.0	0.0	0.0	0.0
I13	78.6	0.0	21.4	0.0	0.0	0.0
I14	100.0	0.0	0.0	0.0	0.0	0.0

<sup>\*</sup> Land Use data was obtained from the Minnesota LMIC International Coalition Land Use/Land Cover project. Each land use type is defined in Appendix G. WSubC represents impacts along Route W where the line is routed to Substation C.

1Sub C represents impacts along Route 1 where the line is routed to Substation C.

# Land Use Impacts Summary: Temporary Construction Road

					Land Use	Types		
oject	Route	Segment	Agricultural	Grassland	Commercial	Forested	Residential	Wetland
5	E		81.14	6.11	0.16	0.70	0.79	0.03
	L	E2	14.81	1.25	0.08	0.42	0.36	0.00
		E3	15.82	0.16	0.00	0.00	0.02	0.00
		E4	19.94	1.37	0.02	0.09	0.37	0.00
		E5	23.24	1.99	0.05	0.18	0.03	0.03
		EW1	7.33	1.34	0.00	0.01	0.03	0.00
	W	-	77.21	8.96	0.00	1.12	0.40	0.00
		EW1	7.33	1.34	0.00	0.01	0.03	0.00
		W2	4.67	0.00	0.00	0.02	0.01	0.00
		W3 W4	11.86 14.31	0.04 2.67	0.00	0.21 0.00	0.00 0.12	0.00
		W5	20.44	2.62	0.00	0.09	0.02	0.00
		W6	18.61	2.30	0.00	0.79	0.22	0.00
		1 "0	10.01	2.30	0.00	0.75	0.22	0.00
	WSubC		76.77	8.05	0.00	1.14	0.36	0.08
		W3	11.86	0.04	0.00	0.21	0.00	0.00
		W4	14.31	2.67	0.00	0.00	0.12	0.00
		W5	20.44	2.62	0.00	0.09	0.02	0.00
		W6	18.61	2.30	0.00	0.79	0.22	0.00
		AW1	11.56	0.42	0.00	0.05	0.00	0.08
	1		122.60	((40	0.42	0.22	0.22	0.00
	1	65	122.68	66.10	0.43	0.23	0.23	0.20
		C5	3.53	0.00	0.11	0.00	0.00	0.00
		C7	2.39	0.04	0.00	0.00	0.00	0.00
		I1	0.00	0.00	0.00	0.00	0.00	0.00
		I2 I3	0.00 0.00	0.00	0.00	0.00	0.00	0.00
		13 14	14.68	12.93	0.01	0.09	0.00	0.00
		I5	24.25	28.67	0.05	0.11	0.05	0.05
		I6	13.97	3.54	0.00	0.00	0.00	0.00
		I8	18.13	15.20	0.00	0.00	0.00	0.00
		19	2.54	4.66	0.00	0.00	0.00	0.03
		T10	24.18	1.04	0.23	0.00	0.00	0.03
		T14	9.63	0.00	0.00	0.00	0.14	0.00
		T15	2.55	0.00	0.00	0.00	0.00	0.00
		T9	4.15	0.00	0.00	0.03	0.04	0.00
		I15	2.68	0.03	0.02	0.01	0.00	0.00
			450.00	40.40	0.40		0.40	
	2		168.35	13.10	0.43	0.52	0.48	0.55
		MF1	5.04	0.14	0.06	0.00	0.00	0.00
		T1	0.00	0.00	0.00	0.00	0.00	0.00
		T10 T11	24.18 24.86	1.04 0.35	0.23 0.00	0.00	0.00	0.03
		T12	24.86 9.59	0.35	0.00	0.00	0.00	0.00
		T13	6.27	0.57	0.00	0.02	0.07	0.36
		T14	9.63	0.00	0.00	0.00	0.14	0.00
		T2	0.00	0.00	0.00	0.00	0.00	0.00
		Т3	0.00	0.00	0.00	0.00	0.00	0.00
		I	9.55	3.29	0.00	0.16	0.00	0.00
		T4					0.03	
		T5	15.65	0.32	0.03	0.08		0.00
		T5 T6	15.65 5.26	0.10	0.00	0.00	0.00	0.00
		T5 T6 T7	15.65 5.26 44.95	0.10 6.57	0.00 0.05	0.00 0.21	0.00 0.21	0.00 0.16
		T5 T6 T7 T8	15.65 5.26 44.95 9.22	0.10 6.57 0.64	0.00 0.05 0.00	0.00 0.21 0.03	0.00 0.21 0.00	0.00 0.16 0.00
		T5 T6 T7	15.65 5.26 44.95	0.10 6.57	0.00 0.05	0.00 0.21	0.00 0.21	0.00 0.16
	1SubC	T5 T6 T7 T8	15.65 5.26 44.95 9.22 4.15	0.10 6.57 0.64 0.00	0.00 0.05 0.00 0.00	0.00 0.21 0.03 0.03	0.00 0.21 0.00 0.04	0.00 0.16 0.00 0.00
	1SubC	T5 T6 T7 T8 T9	15.65 5.26 44.95 9.22 4.15	0.10 6.57 0.64 0.00	0.00 0.05 0.00 0.00 <b>0.43</b>	0.00 0.21 0.03 0.03	0.00 0.21 0.00 0.04 <b>0.23</b>	0.00 0.16 0.00 0.00
	1SubC	T5 T6 17 T8 T9	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52	0.10 6.57 0.64 0.00 <b>63.84</b> 0.63	0.00 0.05 0.00 0.00 <b>0.43</b> 0.00	0.00 0.21 0.03 0.03 <b>0.34</b> 0.08	0.00 0.21 0.00 0.04 <b>0.23</b> 0.00	0.00 0.16 0.00 0.00 <b>0.20</b> 0.00
	1SubC	T5 T6 17 T8 T9	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52 3.53	0.10 6.57 0.64 0.00 <b>63.84</b> 0.63 0.00	0.00 0.05 0.00 0.00 0.00 <b>0.43</b> 0.00 0.11	0.00 0.21 0.03 0.03 <b>0.34</b> 0.08 0.00	0.00 0.21 0.00 0.04 <b>0.23</b>	0.00 0.16 0.00 0.00
	1SubC	T5 T6 17 T8 T9	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52	0.10 6.57 0.64 0.00 <b>63.84</b> 0.63	0.00 0.05 0.00 0.00 <b>0.43</b> 0.00	0.00 0.21 0.03 0.03 <b>0.34</b> 0.08	0.00 0.21 0.00 0.04 <b>0.23</b> 0.00 0.00	0.00 0.16 0.00 0.00 <b>0.20</b> 0.00 0.00
	1SubC	T5 T6 17 T8 T9 C4 C5 C7	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52 3.53 2.39	0.10 6.57 0.64 0.00 <b>63.84</b> 0.63 0.00 0.04	0.00 0.05 0.00 0.00 0.43 0.00 0.11	0.00 0.21 0.03 0.03 <b>0.34</b> 0.08 0.00 0.00	0.00 0.21 0.00 0.04 <b>0.23</b> 0.00 0.00 0.00	0.00 0.16 0.00 0.00 0.00 0.20 0.00 0.00 0.00
	1SubC	T5 T6 17 T8 T9 C4 C5 C7 H	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52 3.53 2.39 0.00	0.10 6.57 0.64 0.00 <b>63.84</b> 0.63 0.00 0.04	0.00 0.05 0.00 0.00 <b>0.43</b> 0.00 0.11 0.00	0.00 0.21 0.03 0.03 <b>0.34</b> 0.08 0.00 0.00	0.00 0.21 0.00 0.04 <b>0.23</b> 0.00 0.00 0.00	0.00 0.16 0.00 0.00 0.00 0.20 0.00 0.00 0.00
	1SubC	T5 T6 17 T8 T9 C4 C5 C7 H1	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52 3.53 2.39 0.00 0.00	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00	0.00 0.21 0.03 0.03 0.34 0.08 0.00 0.00 0.00	0.00 0.21 0.00 0.04 <b>0.23</b> 0.00 0.00 0.00 0.00	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T6 17 T8 T9 C4 C5 C7 H1 12	15.65 5.26 44.95 9.22 4.15 <b>124.45</b> 6.52 3.53 2.39 0.00 0.00	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00	0.00 0.21 0.03 0.03 0.08 0.00 0.00 0.00 0.00 0.00	0.00 0.21 0.00 0.04 <b>0.23</b> 0.00 0.00 0.00 0.00 0.00	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T6 T7 T8 T9  C4 C5 C7 T1 12 13 14 15	15.65 5.26 44.95 9.22 4.15 124.45 6.52 3.53 2.39 0.00 0.00 0.00 14.68 24.25 18.13	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00 0.00 12.93	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00 0.00 0.01 0.05	0.00 0.21 0.03 0.03 0.34 0.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.21 0.00 0.04 0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T6 17 T8 T9 C4 C5 C7 H1 12 13 14 15 18	15.65 5.26 44.95 9.22 4.15 124.45 6.52 3.53 2.39 0.00 0.00 0.00 14.68 24.25 18.13 2.54	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00 12.93 28.67 15.20 4.66	0.00 0.05 0.00 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00 0.00 0.01 0.05 0.00	0.00 0.21 0.03 0.03 0.03  0.34 0.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.21 0.00 0.04  0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T16 T17 T8 T9  C4 C5 C7 H1 12 13 H4 15 18 19 T10	15.65 5.26 44.95 9.22 4.15 124.45 6.52 3.53 2.39 0.00 0.00 0.00 14.68 24.25 18.13 2.54 24.18	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00 12.93 28.67 15.20 4.66 1.04	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00 0.00 0.01 0.05 0.00 0.00	0.00 0.21 0.03 0.03 0.34 0.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.21 0.00 0.04  0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T6 T7 T8 T9  C4 C5 C7 T1 12 13 14 15 18 19 T10 T14	15.65 5.26 44.95 9.22 4.15 124.45 6.52 3.53 2.39 0.00 0.00 14.68 24.25 18.13 2.54 24.18 9.63	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00 12.93 28.67 15.20 4.66 1.04	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00 0.00 0.01 0.05 0.00 0.00 0.00 0.00 0.01	0.00 0.21 0.03 0.03  0.34 0.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.21 0.00 0.04  0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T6 T7 T8 T9  C4 C5 C7 T1 12 13 14 15 18 19 T10 T14 T15	15.65 5.26 44.95 9.22 4.15 124.45 6.52 3.53 2.39 0.00 0.00 0.00 14.68 24.25 18.13 2.54 24.18 9.63 2.55	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00 12.93 28.67 15.20 4.66 1.04 0.00	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.21 0.03 0.03 0.34 0.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.21 0.00 0.04  0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00
	1SubC	T5 T6 T7 T8 T9  C4 C5 C7 T1 12 13 14 15 18 19 T10 T14	15.65 5.26 44.95 9.22 4.15 124.45 6.52 3.53 2.39 0.00 0.00 14.68 24.25 18.13 2.54 24.18 9.63	0.10 6.57 0.64 0.00 63.84 0.63 0.00 0.04 0.00 0.00 12.93 28.67 15.20 4.66 1.04	0.00 0.05 0.00 0.00 0.43 0.00 0.11 0.00 0.00 0.00 0.00 0.01 0.05 0.00 0.00 0.00 0.00 0.01	0.00 0.21 0.03 0.03  0.34 0.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.21 0.00 0.04  0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.16 0.00 0.00 0.00 0.00 0.00 0.00

- Units are in acres.
   Temporary Construction Road was calculated using a 20-foot width, which is the temporary impacts associated with each route segment.
   Land Use Types are defined in Appendix G.

# Land Use Impacts Summary: Temporary Construction Road - Segments Not Selected

	_		Land Use Ty	pes		
Segment	Agricultural	Grassland	Commercial	Forested	Residential	Wetlands
C1	0.00	0.00	0.00	0.00	0.00	0.00
C2	0.00	0.00	0.00	0.00	0.00	0.00
C3	5.22	1.48	0.46	0.26	0.00	0.00
C6	2.36	0.19	0.00	0.00	0.00	0.00
I10	3.34	6.36	0.00	0.00	0.00	0.00
I11	0.78	0.80	0.00	0.00	0.00	0.00
17	22.61	2.51	0.29	0.37	0.34	0.00
MF2	2.28	0.03	0.00	0.00	0.00	0.00
I12	1.53	0.00	0.00	0.00	0.00	0.00
I13	3.28	0.89	0.00	0.00	0.00	0.00
I14	2.16	0.00	0.00	0.00	0.00	0.00

- Assumptions:

  1. Units are in acres.

  2. Temporary Construction Road was calculated using a 20-foot width, which is the temporary impacts associated with each route segment.

  3. Land Use Types are defined in Appendix G.

Land Use Impacts Summary: Temporary Pole Impacts

					Land Use	Types		
Project	Route	Segment	Agricultural	Grassland	Commercial	Forested	Residential	Wetlands
115								
	Е	•	20.28	1.53	0.04	0.17	0.20	0.01
		E2	3.70	0.31	0.02	0.11	0.09	0.00
		E3	3.96	0.04	0.00	0.00	0.00	0.00
		E4 E5	4.99 5.81	0.34 0.50	0.01 0.01	0.02 0.04	0.09 0.01	0.00 0.01
		EW1	1.83	0.34	0.00	0.00	0.01	0.01
		i Ewi	1.03	0.54	0.00	0.00	0.01	0.00
	W		19.30	2.24	0.00	0.28	0.10	0.00
		EW1	1.83	0.34	0.00	0.00	0.01	0.00
		W2 W3	1.17 2.96	0.00 0.01	0.00	0.01 0.05	0.00	0.00
		W4	3.58	0.67	0.00	0.00	0.03	0.00
		W5	5.11	0.65	0.00	0.02	0.01	0.00
		W6	4.65	0.58	0.00	0.20	0.05	0.00
	WSubC		19.19	2.01	0.00	0.29	0.09	0.02
	WSubC	W3	2.96	0.01	0.00	0.05	0.09	0.02
		W4	3.58	0.67	0.00	0.00	0.03	0.00
		W4 W5	5.11	0.65	0.00	0.00	0.03	0.00
		W6	4.65	0.58	0.00	0.20	0.05	0.00
		AW1	2.89	0.11	0.00	0.01	0.00	0.02
		•						
15	1		12.91	6.96	0.04	0.02	0.02	0.02
	1	C5	0.37	0.00	0.04	0.02	0.02	0.02
		C3 C7	0.25	0.00	0.00	0.00	0.00	0.00
		I1	0.00	0.00	0.00	0.00	0.00	0.00
		12	0.00	0.00	0.00	0.00	0.00	0.00
		13	0.00	0.00	0.00	0.00	0.00	0.00
		I4	1.55	1.36	0.00	0.01	0.00	0.01
		15	2.55	3.02	0.01	0.01	0.01	0.01
		16	1.47	0.37	0.00	0.00	0.00	0.00
		18	1.91	1.60	0.00	0.00	0.00	0.00
		I9	0.27	0.49	0.00	0.00	0.00	0.00
		T10	2.55	0.11	0.02	0.00	0.00	0.00
		T14	1.01	0.00	0.00	0.00	0.01	0.00
		T15	0.27	0.00	0.00	0.00	0.00	0.00
		T9 I15	0.44 0.28	0.00	0.00	0.00	0.00	0.00
		115	0.28	0.00	0.00	0.00	0.00	0.00
	2		17.72	1.38	0.04	0.05	0.05	0.06
		MF1	0.53	0.01	0.01	0.00	0.00	0.00
		T1	0.00	0.00	0.00	0.00	0.00	0.00
		T10	2.55	0.11	0.02	0.00	0.00	0.00
		T11	2.62	0.04	0.00	0.00	0.00	0.00
		T12 T13	1.01 0.66	0.01	0.01 0.00	0.00	0.00 0.01	0.00 0.04
		T14	1.01	0.06	0.00	0.00	0.01	0.04
		T2	0.00	0.00	0.00	0.00	0.00	0.00
		T3	0.00	0.00	0.00	0.00	0.00	0.00
		T4	1.01	0.35	0.00	0.02	0.00	0.00
		T5	1.65	0.03	0.00	0.01	0.00	0.00
		Т6	0.55	0.01	0.00	0.00	0.00	0.00
		T7	4.73	0.69	0.01	0.02	0.02	0.02
		T8	0.97	0.07	0.00	0.00	0.00	0.00
		Т9	0.44	0.00	0.00	0.00	0.00	0.00
	1SubC	_	13.10	6.72	0.04	0.04	0.02	0.02
		C4	0.69	0.07	0.00	0.01	0.00	0.00
		C5	0.37	0.00	0.01	0.00	0.00	0.00
		C7	0.25	0.00	0.00	0.00	0.00	0.00
		I1	0.00	0.00	0.00	0.00	0.00	0.00
		I2	0.00	0.00	0.00	0.00	0.00	0.00
		I3 I4	0.00 1.55	0.00 1.36	0.00	0.00 0.01	0.00	0.00 0.01
		14 I5	2.55	3.02	0.00	0.01	0.00	0.01
		15 I8	1.91	1.60	0.00	0.00	0.00	0.00
		19	0.27	0.49	0.00	0.00	0.00	0.00
		T10	2.55	0.11	0.02	0.00	0.00	0.00
		T14	1.01	0.00	0.00	0.00	0.01	0.00
		T15	0.27	0.00	0.00	0.00	0.00	0.00
		Т8	0.97	0.07	0.00	0.00	0.00	0.00
		Т9	0.44	0.00	0.00	0.00	0.00	0.00
		I15	0.28	0.00	0.00	0.00	0.00	0.00

Assumptions:

1. Units are in acres.

<sup>1.</sup> Units are in acres.

2. Number of poles was determined using the average span between poles, which was divided into the length of each route segment. This number is approximate since the final number of poles is dependent on the final engineering design. Average span for the 345 poles is 950-feet. Average span for 115 poles is 400-feet.

3. Temporary Pole Impacts were calculated assuming 2000 square foot area around reach pole. This takes into account the construction road impacts calculated in E.6, so the impacted area around the pole is not counted twice.

4. Land Use Types are defined in Appendix G.

## Land Use Impacts Summary: Temporary Pole Impacts - Segments Not Selected

	Land Use Types								
Segment	Agricultural	Grassland	Commercial	Forested	Residential	Wetlands			
C1	0.00	0.00	0.00	0.00	0.00	0.00			
C2	0.00	0.00	0.00	0.00	0.00	0.00			
C3	0.55	0.16	0.05	0.03	0.00	0.00			
C6	0.25	0.02	0.00	0.00	0.00	0.00			
I10	0.35	0.67	0.00	0.00	0.00	0.00			
I11	0.08	0.08	0.00	0.00	0.00	0.00			
17	2.38	0.26	0.03	0.04	0.04	0.00			
MF2	0.24	0.00	0.00	0.00	0.00	0.00			
I12	0.16	0.00	0.00	0.00	0.00	0.00			
I13	0.34	0.09	0.00	0.00	0.00	0.00			
I14	0.23	0.00	0.00	0.00	0.00	0.00			

- 1. Units are in acres.
- 2. Number of poles was determined using the average span between poles, which was divided into the length of each route segment. This number is approximate since the final number of poles is dependent on the final engineering design. Average span for the 345 poles is 950-feet. Average span for 115 poles is
- 3. Temporary Pole Impacts were calculated assuming 2000 square foot area around reach pole. This takes into account the construction road impacts calculated in E.6, so the impacted area around the pole is not
- 4. Land Use Types are defined in Appendix G.

#### Land Use Impacts Summary: Permanent Impacts

					Land Use	Types		
Project	Route	Segment	Agricultural	Grassland	Commercial	Forested	Residential	Wetlands
115								
	E	_	0.61	0.05	0.00	0.01	0.01	0.00
		E2	0.11	0.01	0.00	0.00	0.00	0.00
		E3	0.12	0.00	0.00	0.00	0.00	0.00
		E4 E5	0.15 0.17	0.01 0.01	0.00	0.00	0.00	0.00
		EW1	0.05	0.01	0.00	0.00	0.00	0.00
		i Ewi	0.05	0.01	0.00	0.00	0.00	0.00
	W	=	0.58	0.07	0.00	0.01	0.00	0.00
		EW1	0.05	0.01	0.00	0.00	0.00	0.00
		W2 W3	0.04 0.09	0.00	0.00	0.00	0.00	0.00
		W4	0.11	0.02	0.00	0.00	0.00	0.00
		W5	0.15	0.02	0.00	0.00	0.00	0.00
		W6	0.14	0.02	0.00	0.01	0.00	0.00
	W		0.50	0.04				
	WSubC		0.58	0.06	0.00	0.01	0.00	0.00
		W3	0.09	0.00	0.00	0.00	0.00	0.00
		W4 W5	0.11 0.15	0.02 0.02	0.00	0.00	0.00	0.00
		W6	0.15	0.02	0.00	0.00	0.00	0.00
		AW1	0.09	0.00	0.00	0.00	0.00	0.00
		•						
45	4							
	1	- CT	0.39	0.21	0.00	0.00	0.00	0.00
		C5 C7	0.01 0.01	0.00	0.00	0.00	0.00	0.00
		I1	0.00	0.00	0.00	0.00	0.00	0.00
		I2	0.00	0.00	0.00	0.00	0.00	0.00
		13	0.00	0.00	0.00	0.00	0.00	0.00
		I4	0.05	0.04	0.00	0.00	0.00	0.00
		I5	0.08	0.09	0.00	0.00	0.00	0.00
		16	0.04	0.01	0.00	0.00	0.00	0.00
		I8	0.06	0.05	0.00	0.00	0.00	0.00
		19	0.01	0.01	0.00	0.00	0.00	0.00
		T10 T14	0.08 0.03	0.00	0.00	0.00	0.00	0.00
		T15	0.03	0.00	0.00	0.00	0.00	0.00
		T9	0.01	0.00	0.00	0.00	0.00	0.00
		I15	0.01	0.00	0.00	0.00	0.00	0.00
	2		0.52	0.04	0.00	0.00	0.00	0.00
	2	MF1	0.53	0.04	<b>0.00</b> 0.00	0.00	<b>0.00</b> 0.00	0.00
		MF1 T1	0.02	0.00	0.00	0.00	0.00	0.00
		T10	0.08	0.00	0.00	0.00	0.00	0.00
		T11	0.08	0.00	0.00	0.00	0.00	0.00
		T12	0.03	0.00	0.00	0.00	0.00	0.00
		T13	0.02	0.00	0.00	0.00	0.00	0.00
		T14	0.03	0.00	0.00	0.00	0.00	0.00
		T2	0.00	0.00	0.00	0.00	0.00	0.00
		T3	0.00	0.00	0.00	0.00	0.00	0.00
		T4 T5	0.03 0.05	0.01	0.00	0.00	0.00	0.00
		T6	0.03	0.00	0.00	0.00	0.00	0.00
		T7	0.14	0.02	0.00	0.00	0.00	0.00
		Т8	0.03	0.00	0.00	0.00	0.00	0.00
		Т9	0.01	0.00	0.00	0.00	0.00	0.00
	1SubC		0.39	0.20	0.00	0.00	0.00	0.00
	10400	C4	0.02	0.00	0.00	0.00	0.00	0.00
		C5	0.01	0.00	0.00	0.00	0.00	0.00
		C7	0.01	0.00	0.00	0.00	0.00	0.00
		I1	0.00	0.00	0.00	0.00	0.00	0.00
		12	0.00	0.00	0.00	0.00	0.00	0.00
		13	0.00	0.00	0.00	0.00	0.00	0.00
		I4	0.05	0.04	0.00	0.00	0.00	0.00
		I5 I8	0.08 0.06	0.09 0.05	0.00	0.00	0.00	0.00
		18 19	0.06	0.05	0.00	0.00	0.00	0.00
		T10	0.08	0.00	0.00	0.00	0.00	0.00
		T14	0.03	0.00	0.00	0.00	0.00	0.00
		T15	0.01	0.00	0.00	0.00	0.00	0.00
		Т8	0.03	0.00	0.00	0.00	0.00	0.00
		Т9	0.01	0.00	0.00	0.00	0.00	0.00
		I15	0.01	0.00	0.00	0.00	0.00	0.00

- Assumptions:
  1. Units are in acres.
- 2. Number of poles was determined using the average span between poles, which was divided into the length of each route segment. This number is approximate since the final number of poles is dependent on the final engineering design. Average span for the 345 poles is 950-feet. Average span for 115 poles is 400-feet.

  3. Permanent impacts were calculated asuming impacts are 60 square feet per pole.

  4. Land Use Types are defined in Appendix G.

# Land Use Impacts Summary: Permanent Impacts - Segments Not Selected

	Land Use Types									
Segment	Agricultural	Grassland	Commercial	Forested	Residential	Wetlands				
C1	0.00	0.00	0.00	0.00	0.00	0.00				
C2	0.00	0.00	0.00	0.00	0.00	0.00				
C3	0.02	0.00	0.00	0.00	0.00	0.00				
C6	0.01	0.00	0.00	0.00	0.00	0.00				
I10	0.01	0.02	0.00	0.00	0.00	0.00				
I11	0.00	0.00	0.00	0.00	0.00	0.00				
17	0.07	0.01	0.00	0.00	0.00	0.00				
MF2	0.01	0.00	0.00	0.00	0.00	0.00				
I12	0.00	0.00	0.00	0.00	0.00	0.00				
I13	0.01	0.00	0.00	0.00	0.00	0.00				
I14	0.01	0.00	0.00	0.00	0.00	0.00				

- 1. Units are in acres.
- 2. Number of poles was determined using the average span between poles, which was divided into the length of each route segment. This number is approximate since the final number of poles is dependent on the final engineering design. Average span for the 345 poles is 950-feet. Average span for 115 poles is 400-feet.
- 3. Permanent impacts were calculated assuming impacts are 60 square feet per pole.
- 4. Land Use Types are defined in Appendix G.

Project	Routing	Segment	Corridor Shared	Total Length	Shared Length	ROW Required
	Е	E2				197.50
		E2	Twp. Road			36.00 36.00
		-	i wp. Roau			36.00
				6.98		36.00
					6.98	36.00
		E3				34.00
			Twp. Road			34.00
						34.00
				6.60	6.60	34.00 34.00
				'		
		E4	Twp. Road			46.30 46.30
		-	1 wp. Roau			46.30
				8.99		46.30
					8.99	46.30
		E5				62.70
			None			9.10
		•				9.10
				10.50		9.10
					1.00	9.10
		_	Twp. Road			53.60
						53.60
				10.50	9.50	53.60 53.60
				l	9.30	33.00
		EW1				18.50
		-	Highway			18.50
				3.59		18.50 18.50
				3.39	3.59	18.50
				•		
-	W	EW1				217.60 18.50
			Highway			18.50
		•				18.50
				3.59	2.50	18.50
					3.59	18.50
		W2				17.60
		-	None			17.60
				1.94		17.60 17.60
				1.94	0.00	17.60
				•		
		W3	CO.1 TV 77 T .			20.60
		-	69 kV T-Line			0.00
				4.99		0.00
					1.00	0.00
			Twp. Road			20.60
		-	1 upi Road			20.60
				4.99		20.60
					4.99	20.60
		W4				73.60
			None			37.30
		•				37.30
				7.05	3.00	37.30 37.30
				İ	5.00	37.30
		-	Twp. Road			36.30
				# C =		36.30
				7.05		36.30

Project Routing W	Segment W5	Corridor Shared	Total Length	Shared Length	ROW Required
w	#13	69 kV T-Line			0.00
	•	O) II ( I Zinc			0.00
			9.56		0.00
				6.00	0.00
		None			9.10
					9.10
			9.56		9.10
			İ	1.00	9.10
		Twp. Road			13.20
					13.20
			9.56	0.54	13.20
			ļ	8.56	13.20
	W6				65.00
		69 kV T-Line			0.00
					0.00
			9.04		0.00
				6.00	0.00
		None			54.50
					54.50
			9.04		54.50
			ļ	1.50	54.50
		Twp. Road			10.50
					10.50
			9.04	7.54	10.50 10.50
			ļ	7.54	
WSubC					211.10
	AW1	ı			29.60
		69 kV T-Line			4.50
			<b>=</b> 00		4.50
			5.00	0.50	4.50 4.50
				0.50	4.50
		None			4.50
					4.50
			5.00		4.50
			ļ	0.50	4.50
		Twp. Road			20.60
	•	p. 21000			20.60
			5.00		20.60
				4.00	20.60
	W3				20.60
		69 kV T-Line			0.00
	•				0.00
			4.99		0.00
				1.00	0.00
		Twp. Road			20.60
	•				20.60
			4.99		20.60
			4.99		20.60

Project 5	Routing WSubC	Segment W4	Corridor Shared	Total Length	Shared Length	ROW Required 73.60
			None			37.30
				7.05		37.30 37.30
				7.05	3.00	37.30
				•	•	
			Twp. Road			36.30 36.30
				7.05		36.30
			•	,,,,	4.05	36.30
		W5	(0.1-W/T.1.:			22.30
			69 kV T-Line			0.00
				9.56		0.00
			•		6.00	0.00
			None			9.10
			None			9.10
				9.56		9.10
			•		1.00	9.10
			Two Pood			13.20
			Twp. Road			13.20
				9.56		13.20
			•		8.56	13.20
		WIE				ZE 00
		W6	69 kV T-Line			65.00 0.00
			U/ KT T-LINE			0.00
				9.04		0.00
					6.00	0.00
			None			54.50
			None			54.50
				9.04		54.50
			•		1.50	54.50
			77 D I			10.50
			Twp. Road			10.50 10.50
				9.04		10.50
			•		7.54	10.50
5	1					646.31
-	-	C5				27.30
			County/Twp. Road			27.30
						27.30
				1.50	1.50	27.30 27.30
					1.30	27.50
		<b>C</b> 7				0.00
			161 T-line			0.00
				4.00		0.00
				1.00	1.00	0.00
					1.00	0.00
		I1				31.30
			Highway			31.30
				2.02		31.30
				3.23	3.23	31.30 31.30
					5.23	31.50
		I15				0.00
			345 T-line			0.00
				4 42		0.00
			•	1.13	1.13	0.00
				į		
		I2				18.90
			Highway			18.90
						18.90 18.90
				1.05		18.90
				1.95	1.95	
				1.95	1.95	18.90
		13		1.95	1.95	18.90 <b>43.70</b>
			Highway	1.95	1.95	18.90 <b>43.70</b> 43.70
			Highway		1.95	43.70 43.70 43.70
			Highway	4.51		18.90 <b>43.70</b> 43.70

Project	Routing	Segment	Corridor Shared	Total Length	Shared Length	ROW Required
5 1	l.	I4				111.26
			Highway			111.26
						111.26
				11.47	11.47	111.26 111.26
					11.4/	111.20
		15				212.80
			Highway			212.80
			- Ingilinay			212.80
				21.94		212.80
			•		21.94	212.80
				•		
		I6				38.80
			Highway			38.80
						38.80
				7.22		38.80
					4.00	38.80
		TO				133.35
		18	County/T B3			31.50
			County/Twp. Road			31.50
				13.75		31.50
			•	13.73	3.25	31.50
					5.25	51.50
			Highway			101.85
						101.85
				13.75		101.85
					10.50	101.85
		19				28.90
			Highway			28.90
						28.90
				2.98	2.98	28.90
				:	2.98	28.90
		T10				0.00
			161 T-line			0.00
						0.00
				10.51		0.00
			•		10.51	0.00
				•		
		T14				0.00
			161 T-line			0.00
						0.00
				4.03		0.00
					4.03	0.00
		T15				0.00
		113	161 T-line			0.00
			101 1-HHC			0.00
				1.05		0.00
			•	1.03	1.05	0.00
				•		
		Т9				0.00
			161 T-line			0.00
						0.00
				1.74		0.00
					1.74	0.00

Project 1	Routing SubC	Segment	Corridor Shared	Total Length	Shared Length	ROW Required 662.01
	5450	C4				54.50
			None			54.50
						54.50
				2.98	0.00	54.50 54.50
		0.		:	0.00	
		C5	County/Twp. Road			27.30 27.30
			County/ 1 wp: Road			27.30
				1.50		27.30
					1.50	27.30
		<b>C</b> 7				0.00
			161 T-line			0.00
				1.00		0.00
					1.00	0.00
		I1				31.30
			Highway			31.30
						31.30
				3.23	2.22	31.30
				!	3.23	31.30
		I15	245 (71.1)			0.00
			345 T-line			0.00
				1.13		0.00
				ļ	1.13	0.00
		I2				18.90
			Highway			18.90
						18.90
				1.95	1.95	18.90 18.90
				i	,5	
		I3				43.70
			Highway			43.70 43.70
				4.51		43.70
					4.51	43.70
		14				111.26
			Highway			111.26
						111.26
				11.47	11.47	111.26 111.26
				i	1117	111120
		I5				212.80
			Highway			212.80 212.80
				21.94		212.80
			•		21.94	212.80
		18				133.35
		20	County/Twp. Road			31.50
			,,p.,			31.50
				13.75	2.25	31.50
				ļ	3.25	31.50
			Highway			101.85
				12.75		101.85
			•	13.75	10.50	101.85 101.85
				i		
		19	1 17. 1			28.90
			Highway			28.90 28.90
				2.98		28.90
			•		2.98	28.90
		T10				0.00
		110	161 T-line			0.00
			-			0.00
				10.51		0.00
					10.51	0.00

Project	Routing 1SubC	Segment T14	Corridor Shared	Total Length	Shared Length	ROW Required
			161 T-line			0.00
						0.00
				4.03	4.02	0.00
					4.03	0.00
		T15				0.00
			161 T-line			0.00
						0.00
				1.05		0.00
					1.05	0.00
		Т8				0.00
			161 T-line			0.00
						0.00
				4.08		0.00
					4.08	0.00
		Т9				0.00
		19	161 T-line			0.00
		-	101 1-IIIIC			0.00
				1.74		0.00
					1.74	0.00
				•		
	2	ME				289.10
		MF1	None			39.30 39.30
		-	None			39.30
				2.16		39.30
				2.10	0.00	39.30
				•		
		T1				58.70
		-	115 T-line			6.10
				2.50		6.10
				3.56	0.70	6.10 6.10
				i	0.70	0.10
			345 T-line			10.90
		•				10.90
				3.56		10.90
					0.60	10.90
			None			41.70
		-	140110			41.70
				3.56		41.70
					2.26	41.70
		hed				
		T10	464 75 **			0.00
		-	161 T-line			0.00
				10.51		0.00
				10.51	10.51	0.00
				:		
		T11				0.00
		-	161 T-line			0.00
				40.42		0.00
				10.40	10.40	0.00
				İ	10.40	0.00
		T12				72.00
			None			72.00
		•				72.00
				4.01		72.00
					0.00	72.00

Project 345 2	Routing	Segment T13	Corridor Shared	Total Length	Shared Length	ROW Required 54.60
			None			54.60
				2.00		54.60
				3.00	0.00	54.60 54.60
		T14				0.00
		114	161 T-line			0.00
						0.00
				4.03		0.00
					4.03	0.00
		T2				0.00
			161 T-line			0.00
						0.00
			•	1.97	1.97	0.00
					1.7/	0.00
		Т3				0.00
			161 T-line			0.00
				4.52		0.00
			•	4.52	4.52	0.00
				•		
		T4				0.00
			161 T-line			0.00
				5.36		0.00
			•		5.36	0.00
		me				64.50
		T5	County/Twp. Road			64.50 64.50
			County/ Twp. Road			64.50
				6.65		64.50
					6.65	64.50
		Т6				0.00
			161 T-line			0.00
						0.00
				2.21	2.21	0.00
				!	2.21	0.00
		T7				0.00
			161 T-line			0.00
				21.54		0.00
				21.51	21.51	0.00
				•		
		T8				0.00
			161 T-line			0.00
				4.08		0.00
			•	1100	4.08	0.00
		prio.		•		0.00
		Т9	161 T-line			0.00
			101 1-HHe			0.00
				1.74		0.00
			•		1.74	0.00

- Assumptions:

  1. ROW Required represents (in acres) the amount of additional ROW that will be needed based on the structure types proposed.

  2. The total ROW needed for the 345 kV Davit Arm Structure is 150 feet, whereas 75 feet of total ROW is required for 115 kV Davit Arm Structures when the transmission line is routed cross-country.

  3. When paralleling a road, 80 feet of ROW is required for a 345 kV Davit Arm Structure, whereas 42.5 feet of ROW is required for a 115 kV Davit Arm Structure.

  4. No additional ROW will be required if the transmission line follows the existing 161 kV ROW.

  5. Shared length is the length of ROW that the proposed route will follow.

Segment	Corridor Shared	Total Length	Shared Length	ROW Required
C1				
	161 T-line	_		0.00
				0.00
		0.28		0.00
		0.	.28	0.00
C2				
	345 T-line	_		0.00
		0.07		0.00
		<b>0.97</b> 0.	07	<b>0.00</b> 0.00
		į.		0.00
C3				
	115 T-line			0.00
		3.06		0.00
		3.	.06	0.00
		i~·		0.00
C6				
	N/A	_		18.50
		1.05		18.50 18.50
		1.05	00	18.50 18.50
		i <sup>o.</sup>		10.30
I10				
	Highway	_		38.80
		4.00		38.80
		4.00	00	<b>38.80</b> 38.80
		[4.	.00	30.00
I11				
	Highway			6.30
		0.65		6.30
		0.65	65	6.30
		0.	.0.5	6.30
17				
	County/Twp. Road			104.50
		10.77		104.50
		10.77	0.77	104.50
		110	0.11	104.50
MF2				
	None	_		17.30
		0.05		17.30
		0.95	00	<b>17.30</b> 17.30
		į <sup>ų.</sup>	.00	17.30
I12				
	345 T-line	_		0.00
		0.62		0.00
		0.63	63	<b>0.00</b> 0.00
		Į0.	.0.5	0.00
I13				
		·		
	Highway			3.40
				3.40
				3.10
		0.86		3.40
		0.	.35	3.40
	None			9.30
	None	_		9.30
		0.86		9.30
		0.	.51	9.30
		•		
I14	245 T 15			0.00
	345 T-line	_		0.00
				0.00
		0.89		
		0.89	.89	0.00

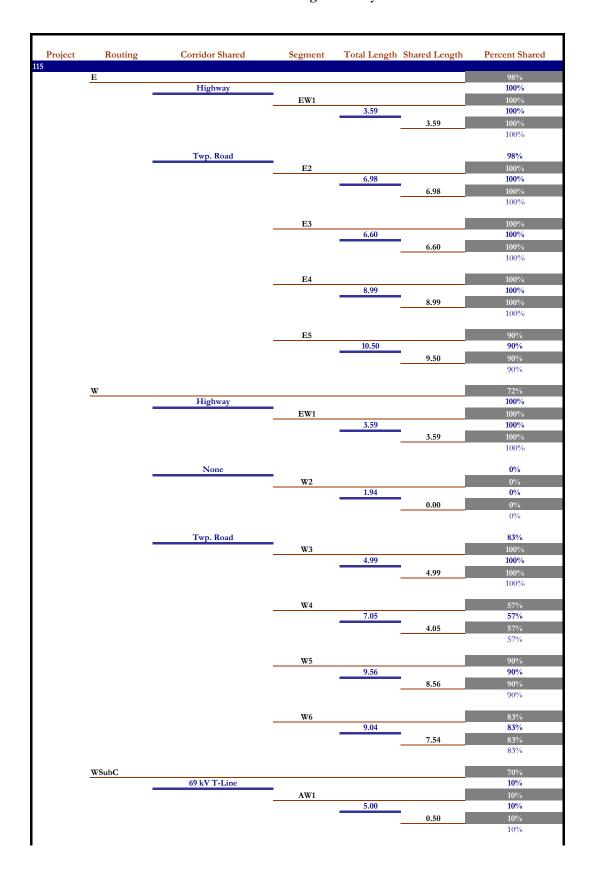
- Assumptions:

  1. ROW Required represents (in acres) the amount of additional ROW that will be needed based on the structure types proposed.

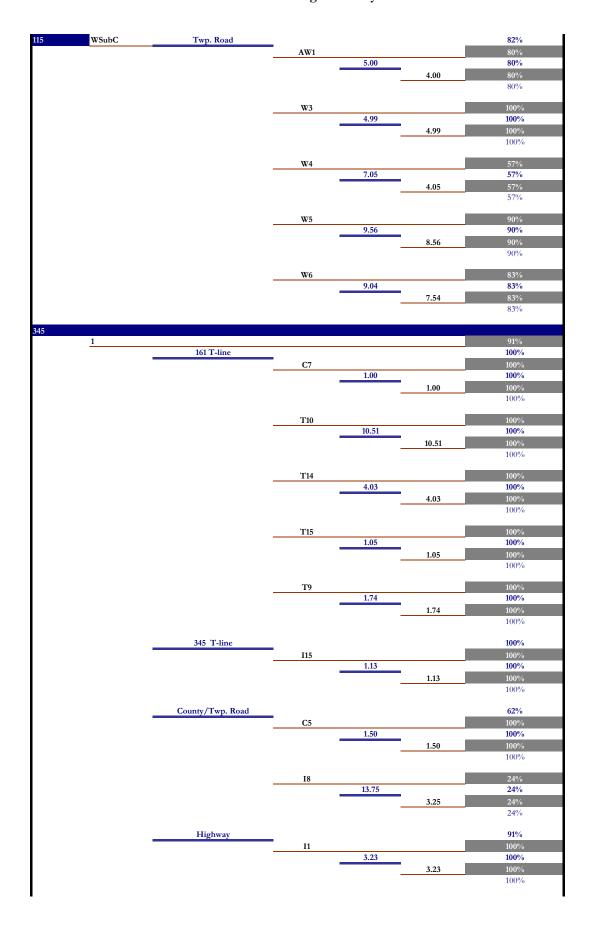
  2. The total ROW needed for the 345 kV Davit Arm Structure is 150 feet, whereas 75 feet of total ROW is required for 115 kV Davit Arm Structures when the transmission line is routed cross-country.

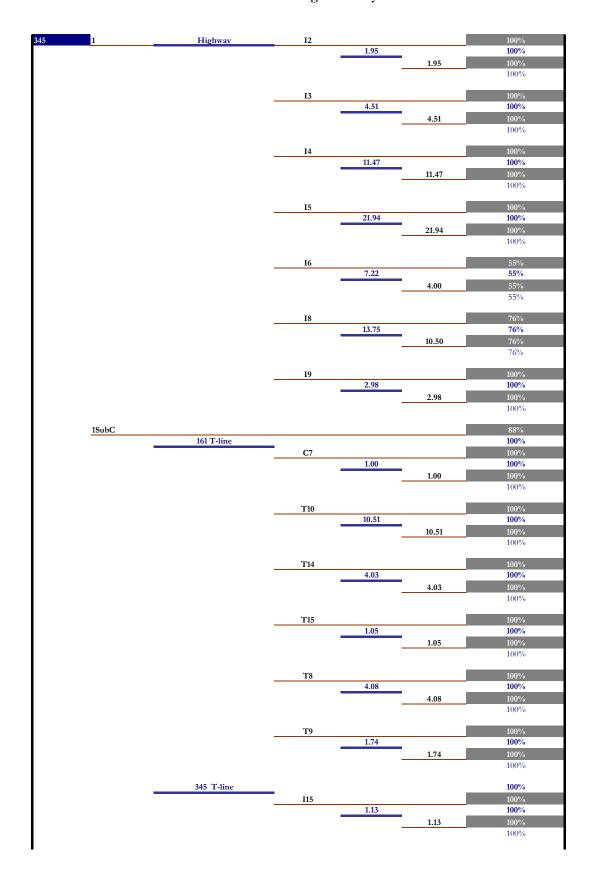
  3. When paralleling a road, 80 feet of ROW is required for a 345 kV Davit Arm Structure, whereas 42.5 feet of ROW is required for a 115 kV Davit Arm Structure.
- No additional ROW will be required if the transmission line follows the existing 161 kV ROW.
   Shared length is the length of ROW that the proposed route will follow.

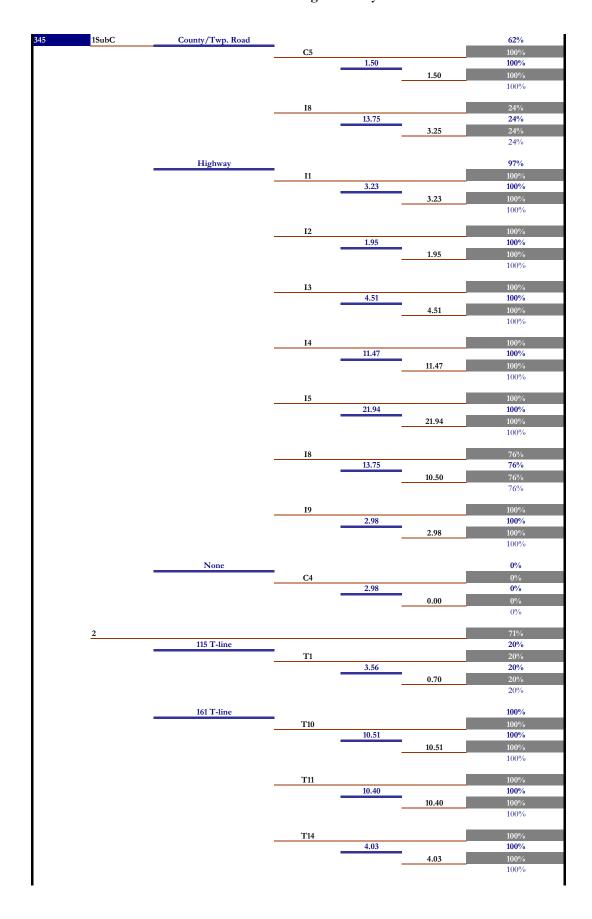
### **Corridor Sharing Summary**



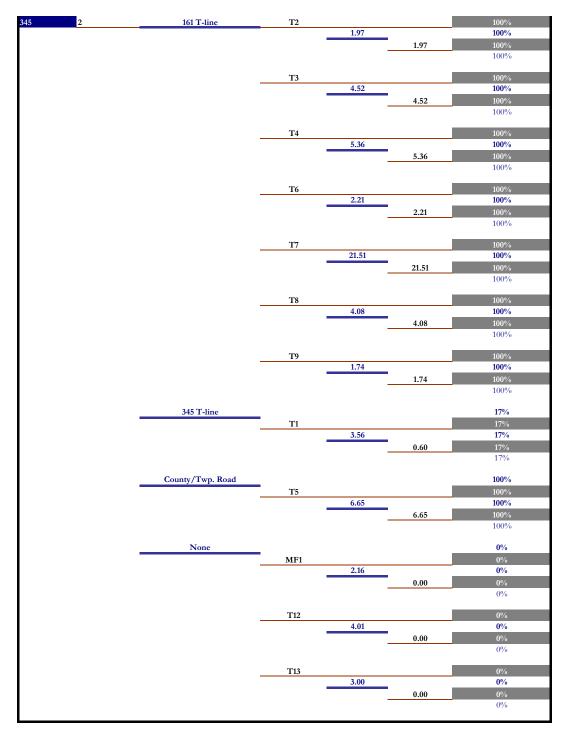
## **Corridor Sharing Summary**







# **Corridor Sharing Summary**



- Assumptions:

  1. Corridor Shared represents the type of existing corridor present along the Route.
- 2. Shared Length is the length of the segment that is shared with the type of ROW in Corridor Shared.
  3. Percent Shared represents the percentage of the total length that is shared.

## Corridor Sharing Summary - Segments Not Selected

Segment	Corridor Shared	Total Length	Shared Length	Percent Shared
C1				100%
<u> </u>	161 T-line			100%
_		0.28		100%
		_	0.28	100%
				100%
C2				100%
_	345 T-line	_		100%
		0.97		100%
		-	0.97	100%
				100%
C3				100%
_	115 T-line			100%
		3.06		100%
		-	3.06	100%
				100%
<b>C</b> 6				0%
_	N/A			0%
		1.05		0%
		_	0.00	0%
				0%
I10				100%
110	Highway			100%
_	8 44	4.00		100%
			4.00	100%
		_		100%
I11	TT' 1			100%
_	Highway	0.65		100%
		0.65	0.65	100% 100%
		-	0.03	100%
				10070
I7				100%
_	County/Twp. Road	•		100%
		10.77	40.55	100%
		-	10.77	100%
				100%
MF2				0%
_	None		<u> </u>	0%
		0.95		0%
		-	0.00	0%
				0%
I12				100%
	345 T-line	_		100%
		0.63		100%
		-	0.63	100%
				100%
I13				41%
110	Highway			41%
_		0.86		41%
			0.35	41%
		_		41%
I14				100%
	345 T-line			100%
114	<del></del>			
- 114		0.89		100%
- 117		0.89	0.89	100% 100%

- Assumptions:

  1. Corridor Shared represents the type of existing corridor present along the Route.

  2. Shared Length is the length of the segment that is shared with the type of ROW in Corridor Shared.

  3. Percent Shared represents the percentage of the total length that is shared.

roject	Route	Structure Type	Segment	Length	Line Cost	ROW Cost	Total Cost
	Е				\$12,831,000	\$623,220	\$13,454,257
	,	115 kV Single Steel Pole			\$12,831,000	\$623,220	\$13,454,257
			E2		\$2,443,000	\$118,660	\$2,561,667
				6.98	\$2,443,000	\$118,660	\$2,561,667
			<b>E3</b>		\$2,310,000	\$112,200	\$2,422,207
				6.60	\$2,310,000	\$112,200	\$2,422,207
			T24		\$3,146,500	\$152,830	e2 200 220
			E4	8.99	\$3,146,500 \$3,146,500	\$152,830 \$152,830	<b>\$3,299,339</b> \$3,299,339
			ļ	0.77	φ3,140,300	φ132,030	\$3,277,337
			E5		\$3,675,000	\$178,500	\$3,853,511
				10.50	\$3,675,000	<b>\$178,5</b> 00	\$3,853,511
			EW1		\$1,256,500	\$61,030	\$1,317,534
				3.59	\$1,256,500	\$61,030	\$1,317,534
			·				
	W				\$14,609,500	\$853,400	\$15,462,978
		115 kV Single Steel Pole	TSW/4		\$8,109,500	\$452,370	\$8,561,925
			EW1	3.59	<b>\$1,256,500</b> \$1,256,500	<b>\$61,030</b> \$61,030	<b>\$1,317,534</b> \$1,317,534
			}	3.39	φ1,230,300	\$01,030	φ1,517,554
			W2		\$679,000	\$32,980	\$711,982
				1.94	\$679,000	\$32,980	\$711,982
			W3		\$1,396,500	\$84,830	\$1,481,335
			****	3.99	\$1,396,500	\$84,830	\$1,481,335
			· · · · · · · · · · · · · · · · · · ·				
			W4		\$2,467,500	\$119,850	\$2,587,357
				7.05	\$2,467,500	\$119,850	\$2,587,357
			<b>W</b> 5		\$1,246,000		\$1,246,019
				1.00	\$350,000		\$350,010
				2.56	\$896,000		\$896,010
			W6		\$1,064,000	<b>\$153,680</b>	\$1,217,698
				1.50	\$525,000	<b>4100,000</b>	\$525,009
				1.54	\$539,000	\$153,680	\$692,689
		445 (01370) 1 0 13 1			AC 700 000	0.404.020	AC 004 054
		115/69 kV Single Steel Pole	W3		\$6,500,000 \$500,000	\$401,030 \$84,830	\$6,901,054 \$584,835
				1.00	\$500,000	\$84,830	\$584,835
			'				
			W5		\$3,000,000	\$162,520	\$3,162,530
				6.00	\$3,000,000	\$162,520	\$3,162,530
			W6		\$3,000,000	\$153,680	\$3,153,689
				6.00	\$3,000,000	\$153,680	\$3,153,689
	W/C 1 C				012 252 000	0044 200	#14 00T 4F4
	WSubC	115 kV Single Steel Pole			\$13,253,000 \$6,503,000	\$844 <b>,390</b> \$358,360	\$14,097,454 \$6,861,395
		113 KV Shigie Steel Fule	W3		\$1,396,500	\$84,830	\$1,481,335
				3.99	\$1,396,500	\$84,830	\$1,481,335
			W4	=	\$2,467,500	\$119,850	\$2,587,357
				7.05	\$2,467,500	\$119,850	\$2,587,357

Project 115	Route WSubC	Structure Type 115 kV Single Steel Pole	Segment W6	Length	Line Cost \$1,064,000	ROW Cost \$153,680	Total Cost \$1,217,698
	_			1.50	\$525,000		\$525,009
				1.54	\$539,000	<b>\$153,68</b> 0	\$692,689
			AW1		\$1,575,000		\$1,575,005
				4.50	\$1,575,000		\$1,575,005
		115/69 kV Single Steel Pole			\$6,750,000	\$486,030	\$7,236,059
			W3	•	\$500,000	\$84,830	\$584,835
				1.00	\$500,000	\$84,830	\$584,835
			<b>W</b> 5		\$3,000,000	\$162,520	\$3,162,530
				6.00	\$3,000,000	<b>\$162,52</b> 0	\$3,162,530
			W6		\$3,000,000	\$153,680	\$3,153,689
				6.00	\$3,000,000	\$153,680	\$3,153,689
			AW1	_	\$250,000	\$85,000	\$335,005
				0.50	\$250,000	\$85,000	\$335,005
45							
	1				\$47,037,000	\$3,665,617	\$50,702,705
		345 kV Single Steel Pole			\$34,275,000	\$2,855,108	\$37,130,176
			C5		\$750,000	\$62,475	\$812,477
				1.50	\$750,000	\$62,475	\$812,477
			I1		\$1,615,000	\$134,530	\$1,749,533
				3.23	\$1,615,000	\$134,530	\$1,749,533
			<b>I2</b>		\$975,000	\$81,218	\$1,056,219
				1.95	\$975,000	\$81,218	\$1,056,219
			<b>I</b> 3		\$2,255,000	\$187,842	\$2,442,846
				4.51	\$2,255,000	\$187,842	\$2,442,846
			<b>I</b> 4		\$5,735,000	\$477,726	\$6,212,737
				11.47	\$5,735,000	\$477,726	\$6,212,737
			15		\$10,970,000	\$913,801	\$11,883,823
				21.94	\$10,970,000	\$913,801	\$11,883,823
			<b>I</b> 6		\$3,610,000	\$300,713	\$3,910,720
				7.22	\$3,610,000	\$300,713	\$3,910,720
			18		\$6,875,000	\$572 <b>,</b> 688	\$7,447,701
				13.75	\$6,875,000	\$572,688	\$7,447,701
			19		\$1,490,000	\$124,117	\$1,614,120
				2.98	\$1,490,000	\$124,117	\$1,614,120
		345/161 kV Single Steel Pole		ı	\$11,914,500	\$763,445	\$12,677,963
			C7		\$650,000	\$41,650	\$691,651
				1.00	\$650,000	\$41,650	\$691,651
			T10		\$6,831,500	\$437,742	\$7,269,252
				10.51	\$6,831,500	\$437,742	\$7,269,252
			T14		\$2,619,500	\$167,850	\$2,787,354
					. ,,000	\$167,850	, ,000 1

Project 45	Route 1	Structure Type 345/161 kV Single Steel Pole	Segment T15	Length	Line Cost \$682,500	ROW Cost \$43,733	<b>Total Cost</b> \$726,234
				1.05	\$682,500	\$43,733	\$726,234
			Т9		\$1,131,000	\$72,471	\$1,203,473
			1)	1.74	\$1,131,000	\$72,471	\$1,203,473 \$1,203,473
		345/345 kV Single Steel Pole			\$847,500	\$47,065	\$894,566
		343/343 KV Shigle Steel Fole	I15		\$847,500	\$47,065	\$894,566
				1.13	\$847,500	\$47,065	\$894,566
	2				\$53,059,500	\$3,569,822	\$56,629,414
		345 kV Single Steel Pole			\$9,040,000	\$807,177	\$9,847,196
			MF1		\$1,080,000	\$89,964	\$1,169,966
				2.16	\$1,080,000	\$89,964	\$1,169,966
			T1		\$1,130,000	\$148,274	\$1,278,278
				2.26	\$1,130,000	\$148,274	\$1,278,278
			T12		\$2,005,000	\$167,017	\$2,172,021
				4.01	\$2,005,000	\$167,017	\$2,172,021
			T13		\$1,500,000	\$124,950	\$1,624,953
			110	3.00	\$1,500,000	\$124,950	\$1,624,953
			Т5		\$2 225 000	\$276,973	\$3 601 070
			15	6.65	<b>\$3,325,000</b> \$3,325,000	\$27 <b>6,973</b> \$276,973	<b>\$3,601,979</b> \$3,601,979
			:				
		345/115 kV Single Steel Pole	779		\$455,000		\$455,004
			T1	0.70	<b>\$455,000</b> <b>\$455,</b> 000		<b>\$455,004</b> <b>\$455,</b> 004
			•				
		345/161 kV Single Steel Pole	T10		\$43,114,500 \$6,831,500	\$2,762,645 <b>\$437,742</b>	\$45,877,211 <b>\$7,269,252</b>
				10.51	\$6,831,500	\$437,742	\$7,269,252
			T11		\$6,760,000	\$433,160	\$7,193,170
			111	10.40	\$6,760,000	\$433,160	\$7,193,170
			T14		e2 (10 E00	¢167.050	e2 707 254
			T14	4.03	<b>\$2,619,500</b> \$2,619,500	<b>\$167,850</b> \$167,850	<b>\$2,787,354</b> \$2,787,354
			!	,,,,,,			
			T2		\$1,280,500	\$82,051	\$1,362,552
				1.97	\$1,280,500	\$82,051	\$1,362,552
			Т3		\$2,938,000	\$188,258	\$3,126,263
				4.52	\$2,938,000	\$188,258	\$3,126,263
			<b>T</b> 4		\$3,484,000	\$223,244	\$3,707,249
				5.36	\$3,484,000	\$223,244	\$3,707,249
			Т6		\$1,436,500	\$92,047	\$1,528,549
			10	2.21	\$1,436,500	\$92,047	\$1,528,549
			Te		#12 OO1 FOO	0007 000	614 DEE 412
			Т7	21.51	<b>\$13,981,500</b> \$13,981,500	<b>\$895,892</b> \$895,892	<b>\$14,877,413</b> \$14,877,413
			!	21.01			Ψ1T,077, <b>T</b> 13
			Т8	! .	\$2,652,000	\$169,932	\$2,821,936
				4.08	\$2,652,000	\$169,932	\$2,821,936
			T9		\$1,131,000	\$72,471	\$1,203,473

Project	Route	Structure Type	Segment	Length	Line Cost	ROW Cost	Total Cost
45	2	345/345 kV Single Steel Pole			\$450,000		\$450,004
			T1		\$450,000		\$450,004
			İ	0.60	\$450,000		\$450,004
	1SubC				\$47,569,000	\$3,658,953	\$51,228,040
		345 kV Single Steel Pole			\$32,155,000	\$2,678,512	\$34,833,576
			C4		\$1,490,000	\$124,117	\$1,614,120
			İ	2.98	\$1,490,000	\$124,117	\$1,614,120
			<b>C</b> 5		\$750,000	\$62,475	\$812,477
				1.50	\$750,000	\$62,475	\$812,477
			I1		\$1,615,000	\$134,530	\$1,749,533
				3.23	\$1,615,000	\$134,530	\$1,749,533
			ı	0.20			
			I2		\$975,000	\$81,218	\$1,056,219
			İ	1.95	\$975,000	\$81,218	\$1,056,219
			I3		\$2,255,000	\$187,842	\$2,442,846
				4.51	\$2,255,000	\$187,842	\$2,442,846
			<b>I</b> 4		\$5,735,000	\$477,726	\$6,212,737
				11.47	\$5,735,000	\$477,726	\$6,212,737
			<b>I</b> 5		\$10,970,000	\$913,801	\$11,883,823
				21.94	\$10,970,000	\$913,801	\$11,883,823
			Το.		oc 075 000	<b>0570</b> (00	07 447 701
			18	13.75	<b>\$6,875,000</b> \$6,875,000	<b>\$572,688</b> \$572,688	<b>\$7,447,701</b> \$7,447,701
			i	13.75	<b>#0,075,000</b>	¥372,000	Ψ1,111,101
			I9		\$1,490,000	\$124,117	\$1,614,120
				2.98	\$1,490,000	\$124,117	\$1,614,120
		345/161 kV Single Steel Pole			\$14,566,500	\$933,377	\$15,499,899
			<b>C</b> 7		\$650,000	\$41,650	\$691,651
				1.00	\$650,000	\$41,650	\$691,651
			T10		\$6,831,500	\$437,742	\$7,269,252
				10.51	\$6,831,500	\$437,742	\$7,269,252
			T14		\$2,619,500	\$167,850	\$2,787,354
			111	4.03	\$2,619,500	\$167,850	\$2,787,354
			T15		\$682,500	\$43,733	\$726,234
			113	1.05	\$682,500 \$682,500	\$43,733	\$72 <b>6,234</b> \$726,234
			į	1.05	9002,300	ΨTJ,1JJ	914U,4JT
			Т8		\$2,652,000	\$169,932	\$2,821,936
			İ	4.08	\$2,652,000	\$169,932	\$2,821,936
			Т9		\$1,131,000	\$72,471	\$1,203,473
				1.74	\$1,131,000	\$72,471	\$1,203,473
		345/345 kV Single Steel Pole			\$847,500	\$47,065	\$894,566
			I15		\$847,500	\$47,065	\$894,566
				1.13	\$847,500	\$47,065	\$894,566

- 1. All costs are estimates.
- 2. Line Cost does not include ROW Costs.
- 3. Total Cost incorporates estimated ROW Costs.
- 4. The 345 kV and 115 kV prices are assuming bundled conductors along the route.
  5. Some rows do not have a value in the ROW Cost column so that the ROW costs are not double counted.

# Transmission Line Costs - Segments Not Selected

Segment	Structure Type	Length	Line Cost	<b>ROW Cost</b>	Total Cost
<b>C</b> 1			\$182,000	\$11,662	\$193,662
- GI	345/161 kV Single Steel Pole		\$182,000	\$11,662	\$193,662
-		0.28	\$182,000	\$11,662	\$193,662
	'		" ,	" ,	. ,
C2			\$727,500	\$40,401	\$767,901
	345/345 kV Single Steel Pole		\$727,500	\$40,401	\$767,901
		0.97	\$727,500	\$40,401	\$767,901
			*4 000 000	0405 440	00 446 450
C3	245 (445 137 0) 1 0 1 1 1		\$1,989,000	\$127,449	\$2,116,452
-	345/115 kV Single Steel Pole	3.06	\$1,989,000	\$127,449	\$2,116,452
	·	3.06	\$1,989,000	\$127,449	\$2,116,452
<b>C</b> 6			\$525,000	\$43,733	\$568,734
	345 kV Single Steel Pole		\$525,000	\$43,733	\$568,734
-		1.05	\$525,000	\$43,733	\$568,734
I10			\$2,000,000	\$166,600	\$2,166,604
	345 kV Single Steel Pole		\$2,000,000	\$166,600	\$2,166,604
		4.00	\$2,000,000	\$166,600	\$2,166,604
17			AT 205 000	¢440 F71	<b>65 022 501</b>
I7	245 LV C:1- C+1 D-1-		\$5,385,000	\$448,571 \$448,571	\$5,833,581 \$5,833,581
-	345 kV Single Steel Pole	10.77	\$5,385,000 \$5,385,000	\$448,571	\$5,833,581
		10.77	ψ3,363,000	\$ <del>11</del> 0,5/1	\$5,655,561
MF2			\$475,000	\$39,568	\$514,568
	345 kV Single Steel Pole		\$475,000	\$39,568	\$514,568
-		0.95	\$475,000	\$39,568	\$514,568
		<del>-</del>			
I12			\$472,500	\$26,240	\$498,740
	345/345 kV Single Steel Pole		\$472,500	\$26,240	\$498,740
		0.63	\$472,500	\$26,240	\$498,740
I13			\$860,000	\$71,638	\$931,640
113	345 kV Single Steel Pole		\$860,000	\$71,638	\$931,640
		0.86	\$860,000	\$71,638	\$931,640
	· · · · · · · · · · · · · · · · · · ·	0.00	Ψοσο,σοσ	Ψ/1,000	Ψ>>1,010
I14			\$667,500	\$37,069	\$704,569
	345/345 kV Single Steel Pole		\$667,500	\$37,069	\$704,569
•		0.89	\$667,500	\$37,069	\$704,569

- 1. All costs are estimates.
- 2. Line Cost does not include ROW Costs.
- 3. Total Cost incorporates estimated ROW Costs.
- 4. The 345 kV and 115 kV prices are assuming bundled conductors along the route.
- 5. Some rows do not have a value in the ROW Cost column so that the ROW costs are not double counted.



#### ARCHAEOLOGICAL AND ARCHITECTURAL SITES

#### Segment#

The route segment where the Archaeological or Architectural Site # was recorded.

#### Site Info

The type of resource recorded at the Archaeological Site #.

#### Eligibility

The Site eligibility for listing under the National Register of Historic Places (NRHP)

#### **Comments**

Information about Sites which overlap with another route segment

### APPENDIX TABLE E-1 345 KV LINE ROUTE 1 – ARCHAEOLOGICAL SITES

Segment #	Archaeological Site #	Site Info	Eligibility	Comments
14	21RK0047	Lithic Scatter	Not Eligible	Also Present In Segment T4
16	21NOc	Not Determined	Not Eligible	Also Present In Segment I5 and C4
Т9	No Sites	NA	NA	NA
T10	No Sites	NA	NA	NA
C5	No Sites	NA	NA	NA
18	No Sites	NA	NA	NA
19	No Sites	NA	NA	NA
C7	No Sites	NA	NA	NA
T14	No Sites	NA	NA	NA
T15	No Sites	NA	NA	NA
TI1	No Sites	NA	NA	NA
	21NO0022	Lithic Scatter	Not Eligible	Also Present In Segment T7 and T8
	21NO0024	Lithic Scatter	Not Eligible	Also Present In Segment T7
C4*	21NO0030	Artifact Scatter	Not Eligible	Also Present In Segment T7 and T8
04	21NO0032	Artifact Scatter	Not Eligible	Also Present In Segment T7 and T8
	21NO0033	Lithic Scatter	Not Eligible	Also Present In Segment T7 and T8
	21NOc	Not Determined	Not Eligible	Also Present In Segment I5 and I6
	21NO0022	Lithic Scatter	Not Eligible	Also Present In Segment T7 and C4
T8*	21NO0030	Artifact Scatter	Not Eligible	Also Present In Segment T7 and C4
10	21NO0032	Artifact Scatter	Not Eligible	Also Present In Segment T7 and C4
	21NO0033	Lithic Scatter	Not Eligible	Also Present In Segment T7 and C4

<sup>\*</sup>Line segment will be added if Substation C is used



### APPENDIX TABLE E-2 345 KV LINE ROUTE 1 – ARCHITECTURAL SITES

Segment #	Architectural Site #	Site Info	Eligibility	Comments
	RK-BCT-003	Farmstead	Undetermined	Also Present In Segment T4
	RK-BCT-004	Farmhouse	Undetermined	Also Present In Segment T4
	RK-BCC-001	Bank	Eligible	NA
14	RK-BCC-002	Commercial Building	Undetermined	NA
	RK-BCC-003	Bridge	Eligible	NA
	RK-BCC-004	Bridge	Undetermined	NA
	RK-LVT-004	Bridge	Undetermined	NA
	RK-LVT-001	Bridge	Eligible	Moved
	RK-MGT-001	Estate	Undetermined	NA
	RK-MGT-002	Bridge	Potentially Eligible	NA
	RK-MGT-005	Bridge	Potentially Eligible	Razed
	RK-MGT-007	School	Potentially Eligible	NA
	RK-MCG-001	Bank	Undetermined	NA
15	RK-MCG-002	Post Office	Undetermined	NA
	RK-MCG-003	Steak House	Undetermined	NA
	NO-ADC-001	Church	Eligible	NA
	NO-ADC-002	Bank	Eligible	Also Present In Segment I6 and C4
	NO-ADC-003	Store Building	Undetermined	Also Present In Segment I6 and C4
	NO-ADC-004	Dentist Office	Undetermined	Also Present In Segment I6 and C4
	NO-ADC-005	Hotel	Undetermined	Also Present In Segment I6 and C4
	NO-ADC-007	Hotel	Eligible	NA
	NO-OLN-001	House	Undetermined	NA
	NO-ADC-002	Bank	Eligible	Also Present In Segment I5 and C4
16	NO-ADC-003	Store Building	Undetermined	Also Present In Segment I5 and C4
10	NO-ADC-004	Dentist Office	Undetermined	Also Present In Segment I5 and C4
	NO-ADC-005	Hotel	Undetermined	Also Present In Segment I5 and C4
Т9	No Sites	NA	NA	NA
T10	NO-ELK-001	Town hall	Undetermined	NA



Segment #	Architectural Site #	Site Info	Eligibility	Comments
C5	No Sites	NA	NA	NA
18	JK-EWT-001	Town hall	Undetermined	NA
10	JK-EWT-002	Church	Undetermined	NA
	JK-RST-001	Church	Undetermined	Also Present In Segment T12, T13 and C6
	JK-RST-002	School	Undetermined	Also Present In Segment T12, T13 and C6
	JK-RST-003	Teacherage	Undetermined	Also Present In Segment T12, T13 and C6
19	JK-RST-005	Farmhouse	Undetermined	Also Present In Segment I10
19	JK-RST-006	Barn	Undetermined	Also Present In Segment I10
	JK-RST-007	Granary	Undetermined	Also Present In Segment I10
	JK-RST-008	Corncrib	Undetermined	Also Present In Segment I10
	JK-RST-009	Barn	Undetermined	Also Present In Segment I10
C7	No Sites	NA	NA	NA
T14	No Sites	NA	NA	NA
T15	No Sites	NA	NA	NA
TI1	No Sites	NA	NA	NA
	NO-ADC-002	Bank	Eligible	Also Present In Segment I5 and I6
C4*	NO-ADC-003	Store	Undetermined	Also Present In Segment I5 and I6
C4	NO-ADC-004	Dentist Office	Undetermined	Also Present In Segment I5 and I6
	NO-ADC-005	Hotel	Undetermined	Also Present In Segment I5 and I6
T8*	No Sites	NA	NA	NA

<sup>\*</sup>Line segment will be added if Substation C is used



# APPENDIX TABLE E-3 345 LINE ROUTE 2 – ARCHAEOLOGICAL SITES

Segment #	Archaeological Site #	Site Info	Eligibility	Comments
	21RK0044	Single Artifact	Not Eligible	NA
T4	21RK0047	Lithic Scatter	Not Eligible	Also Present In Segment I4
	21RK0048	Single Artifact	Not Eligible	NA
T5	No Sites	NA	NA	NA
T6	No Sites	NA	NA	NA
	21RK0008	Earthwork, Rock Alignment	Not Eligible	NA
	21RK0009	Earthwork, Lithic Scatter	Not Eligible	NA
	21RK0015	Lithic Scatter	Not Eligible	NA
	21RK0016	Artifact Scatter	Not Eligible	NA
	21RK0022	Lithic Scatter	Not Eligible	NA
	21RK0023	Artifact Scatter	Not Eligible	NA
T7	21RK0030	Lithic Scatter	Not Eligible	NA
	21RK0031	Lithic Scatter	Not Eligible	NA
	21NO0022	Lithic Scatter	Not Eligible	Also Present In Segment T8 and C4
	21NO0024	Lithic Scatter	Not Eligible	NA
	21NO0026	Lithic Scatter	Not Eligible	NA
	21NO0030	Artifact Scatter	Not Eligible	Also Present In Segment T8 and C4
	21NO0032	Artifact Scatter	Not Eligible	Also Present In Segment T8 and C4
	21NO0033	Lithic Scatter	Not Eligible	Also Present In Segment T8 and C4
	21NO0022	Lithic Scatter	Not Eligible	Also Present In Segment T7 and C4
T8	21NO0030	Artifact Scatter	Not Eligible	Also Present In Segment T7 and C4
10	21NO0032	Artifact Scatter	Not Eligible	Also Present In Segment T7 and C4
	21NO0033	Lithic Scatter	Not Eligible	Also Present In Segment T7 and C4
Т9	No Sites	NA	NA	NA
T10	No Sites	NA	NA	NA
T11	21NOe	Not Determined	Not Eligible	NA
T12	No Sites	NA	NA	NA
T13	No Sites	NA	NA	NA
T14	No Sites	NA	NA	NA
MF1	No Sites	NA	NA	NA



# APPENDIX TABLE E-4 345 LINE ROUTE 2 – ARCHITECTURAL SITES

Segment #	Architectural Site #	Site Info	Eligibility	Comments
	RK-BCT-003	Farmstead	Undetermined	Also Present In Segment I4
T4	RK-BCT-004	Farmhouse	Undetermined	Also Present In Segment I4
	RK-BCT-005	Bridge	Potentially Eligible	NA
T5	RK-BCT-001	House	Eligible	Razed
15	RK-MND-024	Bridge	Undetermined	Also Present In Segment T6
T6	RK-MND-024	Bridge	Undetermined	Also Present In Segment T5
	RK-MND-014	House	Undetermined	NA
	RK-MND-015	Mound	Undetermined	NA
T7	RK-MND-019	Bridge	Potentially Eligible	NA
17	RK-MND-020	State Park	Undetermined	NA
	RK-LVT-005	Bridge	Undetermined	NA
	RK-VNA-002	Bridge	Potentially Eligible	NA
T8	No Sites	NA	NA	NA
Т9	No Sites	NA	NA	NA
T10	NO-ELK-001	Town hall	Undetermined	NA
	NO-BRC-001	Park	Undetermined	NA
	NO-BRC-002	Bank	Undetermined	NA
T11	NO-BRC-003	Bank	Undetermined	NA
111	NO-BRC-004	House	Undetermined	Razed
	JK-ABA-001	Bridge	Potentially Eligible	NA
	JK-ABA-002	Bridge	Potentially Eligible	NA
	JK-RST-001	Church	Undetermined	Also Present In Segment T13, I9 and C6
T12	JK-RST-002	School	Undetermined	Also Present In Segment T13, I9 and C6
	JK-RST-003	Teacherage	Undetermined	Also Present In Segment T13, I9 and C6
	JK-RST-001	Church	Undetermined	Also Present In Segment T12, I9 and C6
T13	JK-RST-002	School	Undetermined	Also Present In Segment T12, I9 and C6
	JK-RST-003	Teacherage	Undetermined	Also Present In Segment T12, I9 and C6
T14	No Sites	NA	NA	NA



Segment #	Architectural Site #	Site Info	Eligibility	Comments
	JK-LKC-002	Church	Undetermined	NA
	JK-LKC-003	Rectory	Undetermined	NA
	JK-LKC-004	Church	Undetermined	NA
	JK-LKC-005	House	Undetermined	NA
	JK-LKC-006	Hospital	Undetermined	NA
	JK-LKC-007	Church	Undetermined	NA
	JK-LKC-008	School	Undetermined	NA
	JK-LKC-009	Church	Undetermined	NA
	JK-LKC-010	House	Undetermined	NA
	JK-LKC-011	House	Undetermined	NA
	JK-LKC-012	House	Undetermined	NA
	JK-LKC-013	House	Undetermined	NA
	JK-LKC-017	Hotel	Eligible	Razed
	JK-LKC-018	Block	Undetermined	NA
	JK-LKC-019	Bank	Undetermined	NA
MF1	JK-LKC-020	Store	Undetermined	NA
	JK-LKC-021	Commercial Building	Undetermined	NA
	JK-LKC-022	Commercial Building	Undetermined	NA
	JK-LKC-023	Commercial Building	Undetermined	NA
	JK-LKC-024	Commercial Building	Undetermined	NA
	JK-LKC-025	Commercial Building	Undetermined	NA
	JK-LKC-026	Commercial Building	Undetermined	NA
	JK-LKC-027	Commercial Building	Undetermined	NA
	JK-LKC-029	House	Undetermined	NA
	JK-LKC-030	Gazebo	Undetermined	NA
	JK-LKC-031	House	Undetermined	NA



# APPENDIX TABLE E-5 115 LINE ROUTE E- ARCHAEOLOGICAL SITES

Segment #	Archaeological Site #	Site Info	Eligibility	Comments
EW1	No Sites	NA	NA	NA
E2	No Sites	NA	NA	NA
E3	No Sites	NA	NA	NA
E4	No Sites	NA	NA	NA
	21MO0028	Rock Alignment	Not Eligible	NA
E5	21MU0062	Single Artifact	Undetermined	Also Present In Segment E7 and W1
	21MU0063	Lithic Scatter	Undetermined	Also Present In Segment E7 and W1

### APPENDIX TABLE E-6 115 LINE ROUTE E – ARCHITECTURAL SITES

Segment #	Architectural Site #	Site Info	Eligibility	Comments
EW1	No Sites	NA	NA	NA
E2	No Sites	NA	NA	NA
E3	No Sites	NA	NA	NA
E4	No Sites	NA	NA	NA
E5	No Sites	NA	NA	NA



### APPENDIX TABLE E-7 115 LINE ROUTE W – ARCHAEOLOGICAL SITES

Segment #	Archaeological Site #	Site Info	Eligibility	Comments
EW1	No Sites	NA	NA	NA
W2	No Sites	NA	NA	NA
W3	21NOj	Earthwork	Not Eligible	Also Present In Segment AW1
W4	No Sites	NA	NA	NA
W5	21MUaa	Artifact Scatter	Not Eligible	NA
	21MUf	Earthwork	Not Eligible	NA
	21MUg	Lithic Scatter	Not Eligible	NA
	21MU0006	Rock Alignment, Rock Art	Not Eligible	NA
W6	21MU0062	Single Artifact	Undetermined	Also Present In Segment E5 and E7
	21MU0063	Lithic Scatter	Undetermined	Also Present In Segment E5 and E7
	21MU0065	Rock Alignment	Undetermined	NA
AW1*	21NOj	Earthwork	Not Eligible	Also Present In Segment W3
AVVI	21NO0028	Lithic Scatter	Not Eligible	NA
	21NO0029	Lithic Scatter	Not Eligible	NA

<sup>\*</sup> Line segment will be added if Substation C is used

### APPENDIX TABLE E-8 115 LINE ROUTE W – ARCHITECTURAL SITES

Segment #	Architectural Site #	Site Info	Eligibility	Comments
EW1	No Sites	NA	NA	NA
W2	No Sites	NA	NA	NA
W3	No Sites	NA	NA	NA
W4	No Sites	NA	NA	NA
W5	MU-CNC-004	Church	Undetermined	NA
VVJ	MU-FEN-001	School	Undetermined	NA
W6	MU-CHR-001	Buffalo Ridge	Undetermined	NA
AW1*	No Sites	NA	NA	NA

<sup>\*</sup> Line segment will be added if Substation C is used



# APPENDIX TABLE E-9 NOBLES SUBSTATION – ARCHAEOLOGICAL SITES

Substation	Archaeological Site #	Site Info	Eligibility	Comments
А	No Sites	NA	NA	NA
В	No Sites	NA	NA	NA
С	21NO0022	Lithic Scatter	Not Eligible	Also Present In Segment T7, T8 and C4
	21NO0024	Lithic Scatter	Not Eligible	Also Present In Segment T7 and C4
	21NO0030	Artifact Scatter	Not Eligible	Also Present In Segment T7, T8 and C4
	21NO0032	Artifact Scatter	Not Eligible	Also Present In Segment T7, T8 and C4
	21NO0033	Lithic Scatter	Not Eligible	Also Present In Segment T7, T8 and C4

### APPENDIX TABLE E-10 NOBLES SUBSTATION – ARCHITECTURAL SITES

Substation	Architectural Site #	Site Info	Eligibility	Comments
А	No Sites	NA	NA	NA
В	No Sites	NA	NA	NA
С	No Sites	NA	NA	NA



### APPENDIX TABLE E-11 SEGMENTS NOT SELECTED- ARCHAEOLOGICAL SITES

Segment #	Archaeological Site #	Site Info	Eligibility	Comments
17	No Sites	NA	NA	NA
I10	No Sites	NA	NA	NA
l11	No Sites	NA	NA	NA
MF2	No Sites	NA	NA	NA
C3	No Sites	NA	NA	NA
C6	No Sites	NA	NA	NA
C7	No Sites	NA	NA	NA
TI1	No Sites	NA	NA	NA
	21NOj	Earthwork	Not Eligible	Also Present In Segment W3
AW1	21NO0028	Lithic Scatter	Not Eligible	NA
	21NO0029	Lithic Scatter	Not Eligible	NA
C1	No Sites	NA	NA	NA
C2	No Sites	NA	NA	NA



### APPENDIX TABLE E-12 SEGMENTS NOT SELECTED- ARCHITECTURAL SITES

Segment #	Architectural Site #	Site Info	Eligibility	Comments
17	No Sites	NA	NA	NA
	JK-RST-005	Farmhouse	Undetermined	Also Present In Segment I9
	JK-RST-006	Barn	Undetermined	Also Present In Segment I9
I10	JK-RST-007	Granary	Undetermined	Also Present In Segment I9
	JK-RST-008	Corncrib	Undetermined	Also Present In Segment I9
	JK-RST-009	Barn	Undetermined	Also Present In Segment I9
l11	No Sites	NA	NA	NA
MF2	No Sites	NA	NA	NA
C3	No Sites	NA	NA	NA
C6	JK-RST-001	Church	Undetermined	Also Present In Segment T12, T13 and I9
	JK-RST-002	School	Undetermined	Also Present In Segment T12, T13 and I9
	JK-RST-003	Teacherage	Undetermined	Also Present In Segment T12, T13 and I9
C7	No Sites	NA	NA	NA
TI1	No Sites	NA	NA	NA
AW1	No Sites	NA	NA	NA
C1	No Sites	NA	NA	NA
C2	No Sites	NA	NA	NA